





### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

JUN 17 2011

REPLY TO THE ATTENTION OF:

## <u>CERTIFIED MAIL</u> <u>RETURN RECEIPT REQUESTED</u>

Mr. Robert Lange Manager, Environmental Control U.S. Steel Corporation – Gary Works One North Broadway Gary, Indiana 46402

Dear Mr. Lange:

The U.S. Environmental Protection Agency is issuing the enclosed Notice of Violation and Finding of Violation (NOV/FOV) to U.S. Steel Corporation – Gary Works (U.S. Steel or facility). This NOV/FOV is issued in accordance with Section 113(a) of the Clean Air Act (the Act), 42 U.S.C. § 7413(a).

EPA performed an inspection of the facility in May of 2007 and subsequently issued requests for information to U.S. Steel. Based on U.S. Steel's responses to a November 2009 information request, EPA finds that U.S. Steel failed to properly control air emissions while dumping iron to the ground, while opening blast furnace relief valves, and while operating its blast furnace. This improper operation resulted in excessive levels of particulate matter opacity from these operations.

Specifically, EPA finds that U.S. Steel has violated the National Emission Standards for Hazardous Air Pollutants, the Indiana State Implementation Plan, and its Title V permit T089-7663-00121, which was issued on August 18, 2006.

Section 113 of the CAA gives EPA several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action.

We are offering you the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice. A conference should be held within 30 days following receipt of this notice. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply and the steps you will take to

prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contact in this matter is Brian Dickens. If you wish to request a conference, you may call him at (312) 886-6073. EPA hopes this NOV/FOV will encourage U.S. Steel to comply with the requirements of the CAA.

Sincerely,

Cheryl L. Newton

Director

Air and Radiation Division

**Enclosure** 

cc: Chief, Office of Enforcement, Air Section Indiana Department of Environmental Management

#### U.S. ENVIRONMENTAL PROTECTION AGENCY REGION 5

| IN THE MATTER OF:                                                    | ) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -        |
|----------------------------------------------------------------------|------------------------------------------------|
| U.S. Steel Corporation – Gary Works<br>Gary, Indiana                 | ) NOTICE OF VIOLATION and FINDING OF VIOLATION |
| Proceedings Pursuant to the Clean Air Act, 42 U.S.C. §§ 7401 et seq. | )<br>) EPA-5-11-IN-04<br>)<br>)                |

# NOTICE AND FINDING OF VIOLATION

U.S. Steel Corporation – Gary Works (you or U.S. Steel) owns and operates an integrated iron and steel facility located at One North Broadway, Gary, Indiana (facility). U.S. Steel owns and operates blast furnaces and other operations at the facility.

EPA is sending this Notice of Violation and Finding of Violation (NOV/FOV) to notify you that we have found that U.S. Steel has violated the following provisions related to the Clean Air Act (the Act or CAA): National Emission Standards for Hazardous Air Pollutants (NESHAP); Title V; Indiana State Implementation Plant (SIP); Indiana Title V Permit Program and its Title V permit.

# **Statutory and Regulatory Authority**

- 1. The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. To attain and maintain these standards, each state is required to develop an implementation plan. The Indiana SIP includes the following requirements:
  - a) Pursuant to 326 IAC 5-1-2, visible emissions from sources in Lake County, Indiana, are limited to twenty percent (20%) opacity on a six-minute average.
  - b) Pursuant to 326 IAC 6.8-10-3, fugitive emissions from sources in Lake County, Indiana, are subject to the opacity limit that is associated with certain operations, as listed in this provision.
  - c) Pursuant to 326 IAC 6.8-10-3(9), fugitive opacity from sources in Lake County, Indiana, that are not explicitly listed in 326 IAC 6.8-10-3, and therefore do not have an explicit opacity limit, shall not exceed an average of twenty percent (20%) opacity in any one three-minute period, or over the period of the operation if the operation is less than three

- minutes. Iron Beaching, furnace top emissions and furnace relief valves are not listed in 326 IAC 6.8-10-3.
- 2. Section 112(b) of the CAA established a list of hazardous air pollutants (HAPs) and provided that EPA shall add to the list additional pollutants that may present a threat of adverse human health effects through inhalation or other routes of exposure. Section 112(d) provides that EPA shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of listed HAPs.
  - a) On May 20, 2003, EPA promulgated the NESHAP for Integrated Iron and Steel Manufacturing, 40 C.F.R. Part 63, Subpart FFFFF. The purpose of these standards is to reduce, on a national scale, emission of chemicals that possess carcinogenic or toxic characteristics. Pursuant to 40 C.F.R. Part 63.7800(a), Subpart FFFFF, "you must always operate and maintain your affected source... in a manner consistent with good air pollution control practices for minimizing emissions".
- 3. Section 502(d)(1) of the CAA requires states to develop a major source permit program, known as the Title V permit program. EPA approved Indiana's permit program on December 4, 2001. Violations of a Title V permit are federally enforceable. U.S. Steel's Title V permit includes the following requirements:
  - a) Pursuant to Condition C.1(a), opacity from sources in Lake County, Indiana, shall not exceed an average of twenty percent (20%) in any one (1) six-minute averaging period as determined in 326 IAC 5-1-4.
  - b) Pursuant to Condition D.7(3)(b), fugitive emissions from iron beaching shall comply with emission limitations in Title V permit condition C.5 Fugitive Dust Emissions. Condition C.5 cites, and in relevant part restates the provisions found in 326 IAC 6.8-10.
  - c) Pursuant to Condition C.5(a)(12), fugitive opacity from sources in Lake County, Indiana, that are not explicitly listed elsewhere in C.5(a), and therefore do not have an explicit opacity limit, shall not exceed an average of twenty percent (20%) in any one three-minute period, or over the period of the operation if the operation is less than three minutes. Iron Beaching, furnace top emissions and furnace relief valves are not listed in C.5(a).
- 4. Title V regulation at 40 C.F.R. 70.7(b) states that no source subject to Title V may operate the source except in compliance with a Title V permit.
- 5. 40 C.F.R. § 70.1(b) requires the owner or operator of a Part 70 source to have a permit to operate that assures compliance by the source with all applicable requirements.

#### **Explanation of Violations**

- 6. In May 2007, EPA conducted an inspection at U.S. Steel Gary Works to evaluate the facility's compliance with the Clean Air Act.
- 7. EPA issued an information request to the facility on November 3, 2009. U.S. Steel responded to this request on December 4, 2009, January 25, 2010, and March 5, 2010.
- 8. On December 14, 2009, U.S. Steel placed iron on the ground, or beached iron, which resulted in opacity of 30% as a three-minute average. This opacity is in excess of the 20% standard in violation of the Indiana SIP at 326 IAC 6.8-10-3(9), and U.S. Steel's Title V permit at C.5(a)(12). Because U.S. Steel has demonstrated the ability to beach iron while generating little to no opacity, this instance indicates a failure to use good air pollution control practices for minimizing emissions, in violation of 40 C.F.R. Part 63.7800(a), Subpart FFFFF.
- 9. On December 15, 2009, U.S. Steel's #14 Blast Furnace relief valves emitted opacity at 22% as a three-minute average. This opacity is in excess of the 20% standard in violation of the Indiana SIP at 326 IAC 6.8-10-3(9), and U.S. Steel's Title V permit at C.5(a)(12). Furthermore, U.S. Steel has demonstrated the ability to open relief valves for planned activities while generating little to no opacity. U.S. Steel has also demonstrated the ability to avoid unplanned relief valve openings or to emit little to no opacity during unplanned relief valve openings. Because of this, the excessive opacity on December 15, 2009, indicates a failure to use good air pollution control practices for minimizing emissions, in violation of 40 C.F.R. Part 63.7800(a), Subpart FFFFF.
- 10. On December 15, 2009, U.S. Steel's Blast Furnace #4 top emitted opacity at 23.9% over the period of emissions. This opacity is in excess of the 20% standard in violation of the Indiana SIP at 326 IAC 6.8-10-3(9), and U.S. Steel's Title V permit at C.5(a)(12).

## **Environmental Impact of Violations**

- 11. These violations have caused or can cause excess emissions of opacity, particulate matter, carbon monoxide (CO) and hazardous air pollutants.
- 12. Excess opacity increases public exposure to unhealthy particulate matter. Excess emissions of particulate matter increase public exposure to fine particulates. Fine particulate matter contributes to respiratory problems, lung damage and premature deaths.
- 13. Excess emissions of CO increase public exposure to CO, which can enter the bloodstream and reduce oxygen delivery to the body. CO can also aggravate cardiovascular disease.
- 14. Particulate matter from iron and steel manufacturing contains lead, manganese and other compounds that are considered to be Air Toxics and are especially harmful to human health and the environment. Chronic (long-term) exposure to high levels of manganese by inhalation in humans may result in central nervous system and respiratory effects.

Manganese can affect visual reaction time, hand steadiness, and eye-hand coordination. Lead affects the nervous system. Children are particularly sensitive to the neurotoxic effects of lead and there is evidence that lead may affect the hearing threshold and growth in children. Other effects from chronic lead exposure in humans include effects on blood pressure and kidney function, and interference with vitamin D metabolism.

6/17/11 Date

Cheryl L. Newton, Director Air and Radiation Division

### **CERTIFICATE OF MAILING**

I, Loretta Shaffer, certify that I sent a Notice of Violation and Finding of Violation, No. EPA-5-11-IN-04, by Certified Mail, Return Receipt Requested, to:

Mr. Robert Lange, Manager, Environmental Control U.S. Steel Corporation – Gary Works One North Broadway Gary, Indiana 46402

I also certify that I sent copies of the Finding of Violation and Notice of Violation by first class mail to:

Chief, Office of Enforcement Air Section Indiana Department of Environmental Management 100 North Senate Avenue, Room 1001 Indianapolis, Indiana 46206-6015

David W. Hacker Law Department United States Steel Corporation 600 Grant Street Pittsburgh, Pennsylvania 15219-2800

on the  $30^{\text{H}}$  day of  $30^{\text{H}}$ , 2011

Loretta Shaffer, Secretar

Program Assistant

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7670 1754

Standard bcc's: Official file copy w/attachment(s)

Other bcc's:

Sabrina Argentieri, C-14J Brian Dickens, AE-17J

Stephen Mendoza, ORC (pdf copy)

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